

Developing and delivering future mobility in GM

Smart Transport Conference September 2019

Rafael Cuesta

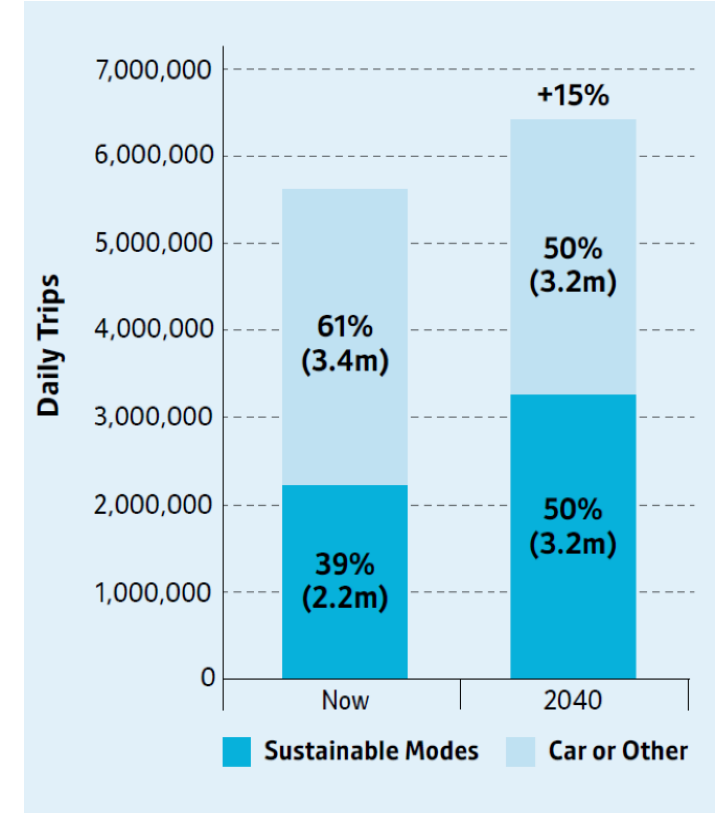
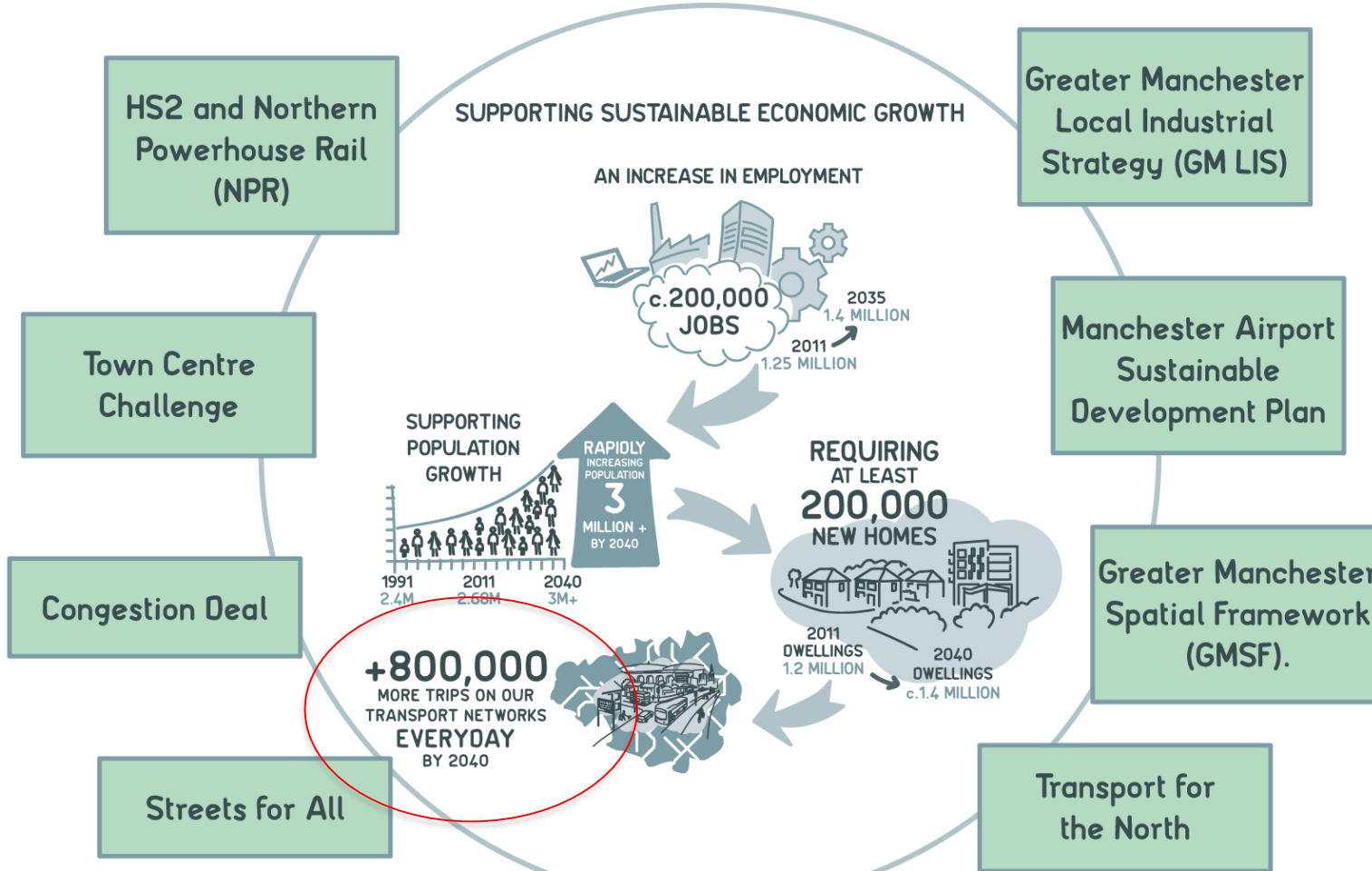
Head of innovation

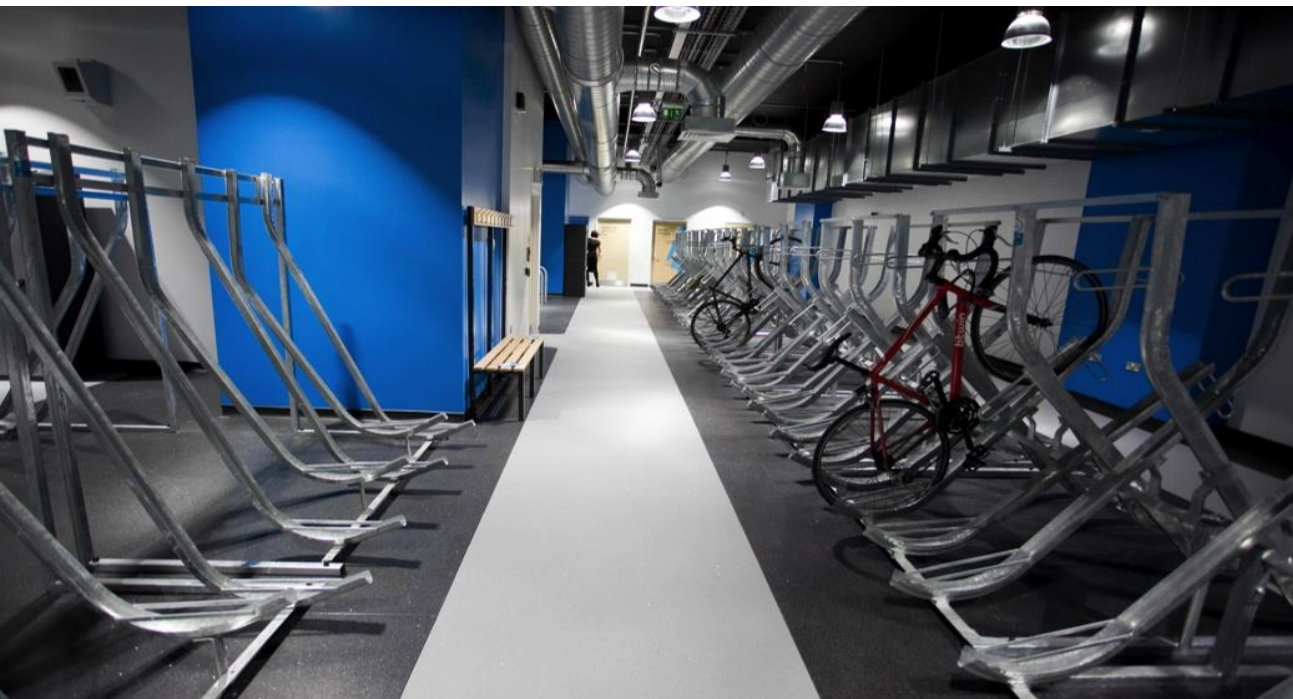
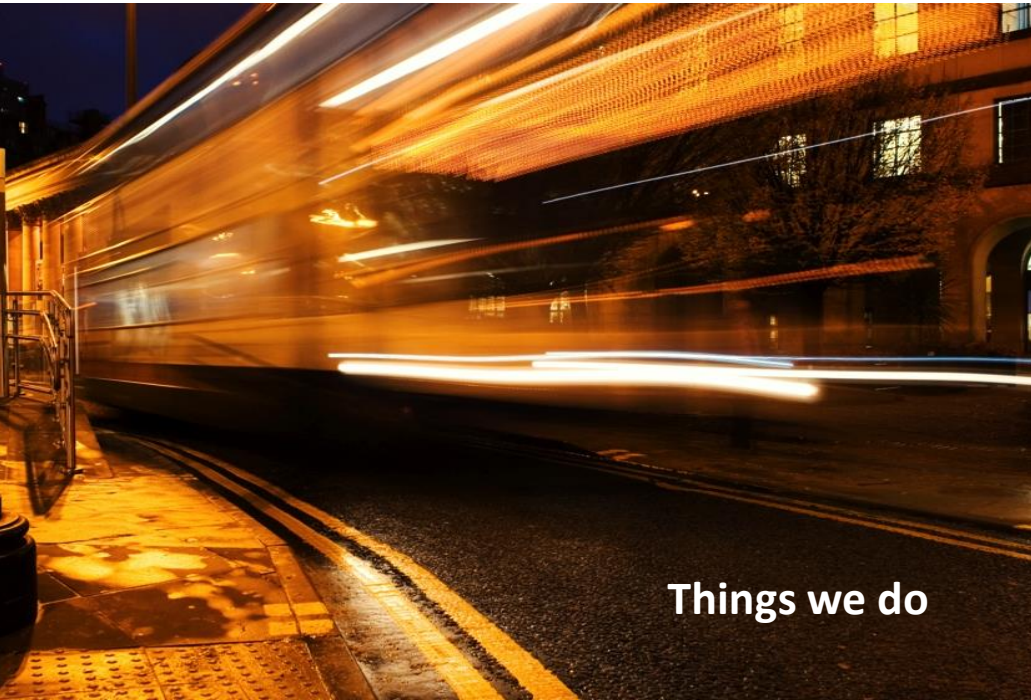
Transport for Greater Manchester





The challenge





**The world is changing
FAST**



Technology:

materials, engine technology, design, automation



Place:

liveable cities, healthy streets, connected neighbourhoods, clean air, decarbonisation



Behaviour:

shared economy, social norms, gen z & y, simplicity expectation



Data & Analytics:

sensors, digitisation, IoT, big data analytics, connectivity



trucks/vans



walk



public
transport

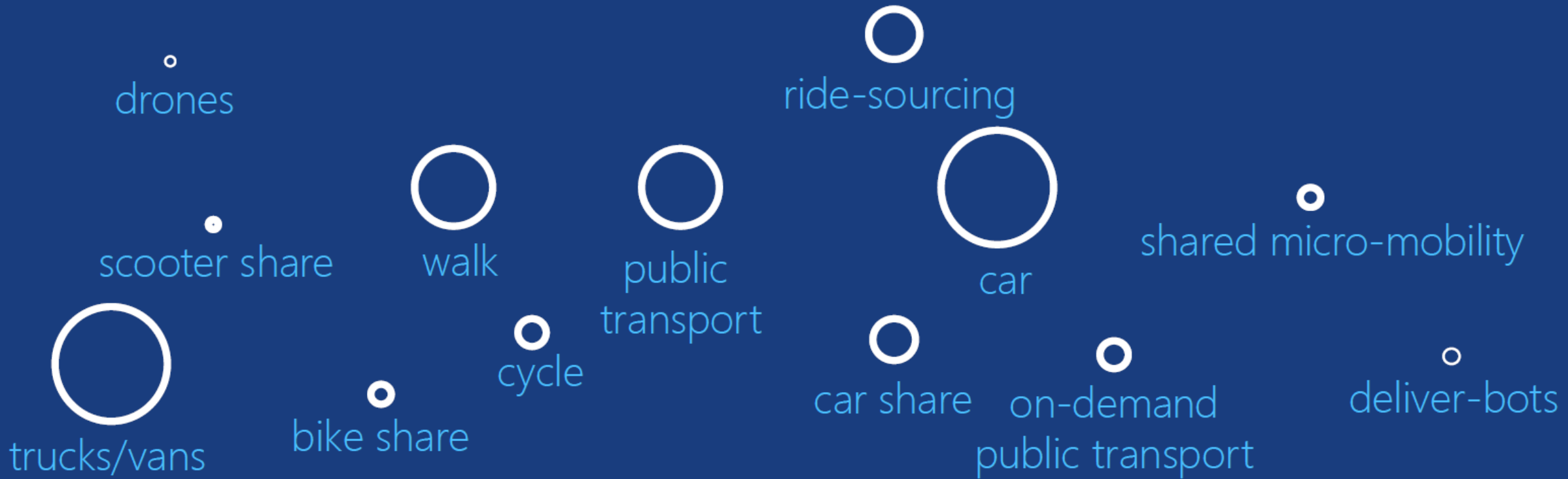


car



cycle

mobility in the city



mobility in the city

**Opportunity to reimagine the
future of transport**

Our innovation model





R&D



BAU

Intelligent Mobility

Autonomy – Sky & Ground
AI & Machine Learning
Data & Insight
Smart Cities
Open Innovation

New Mobility

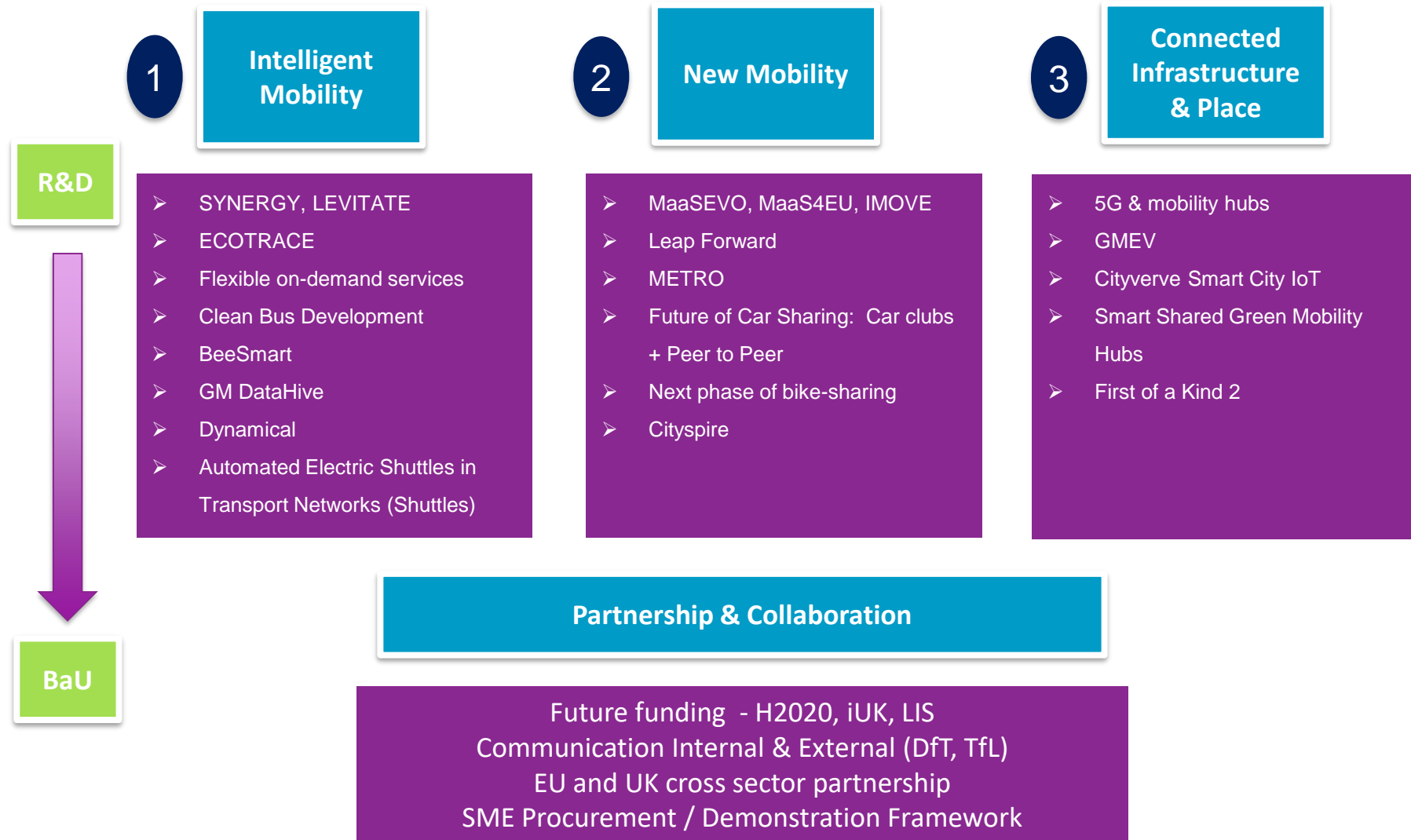
Shared Mobility
Micro-Mobility
On-Demand Mobility
First/Last mile – seamless
connectivity
Mobility as a Service & XaaS

Connected Infrastructure & Place

Future Connectivity - 5G
Mobility Hubs
GMEV Electric Charging
Dynamic Kerbside Management
Virtual / Digital Mobility
infrastructure

Partnership & Collaboration

Future funding - H2020, iUK, LIS
Communication Internal & External (DfT, TfL)
EU and UK cross sector partnership
SME Procurement / Demonstration Framework

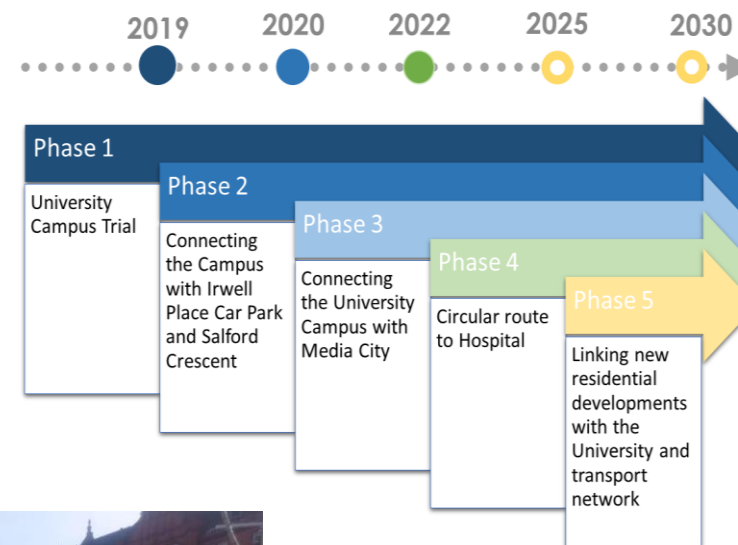




Develop phased plan for trialling the autonomous pod in the University Campus, with the aim of testing on the highway.

Enhance the new Autonomous Vehicle and Driverless Technology (AVADT) course starting this September at the University of Salford.

Provide research opportunities across a wide range of other disciplines including Behavioural Psychology, Law and Transport Geography.





Mobility as a Service App

Everything in one place

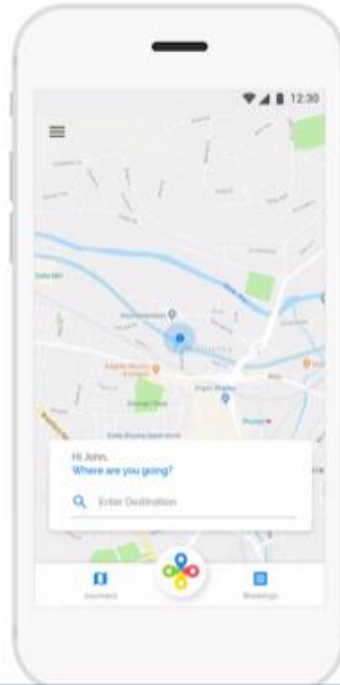
Use Mobilio to find, book and pay for trains, hotels, taxi, flights, car hire, airport lounge and more. All your travel documents are stored securely within the app.

Save time | Save money

Reduce time spent searching travel providers and making individual bookings. Mobilio finds you the very best price for your entire business journey in seconds.

Book for yourself or others

Empower employees to make their own travel arrangements through the app or make bookings on their behalf with the travel documents sent to their app.



Desktop and App

Our Business Mobility-as-a-Service 'Mobilio' app is free to download and use straight away for all the latest iOS, Android and desktop devices.

Smart Mobility

The Smart Mobility Engine helps users assess and compare all their travel options for a journey so they can decide to book based on cost, convenience or comfort.

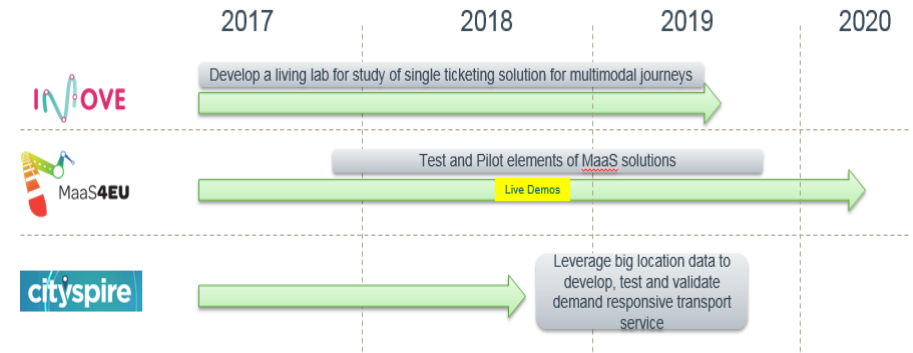
Account or Card

Businesses can choose from a number of flexible payment options including credit/debit card, using business credit or by signing up to a monthly payment package.

TfGM MaaS findings



Underpinned by extensive work to build commercial and financial models required for MaaS



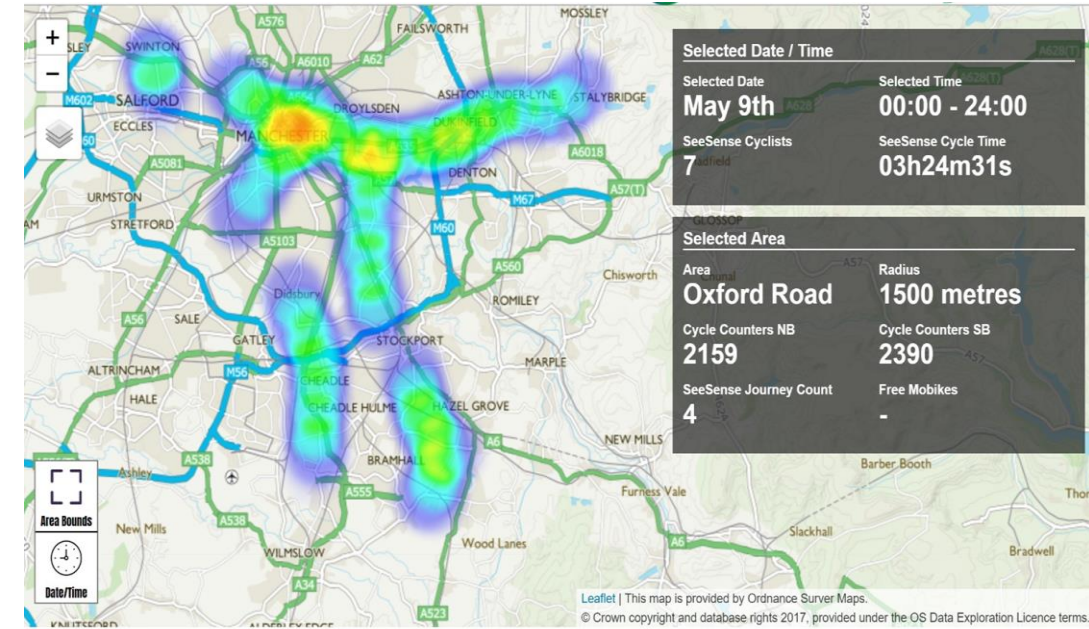


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Lights offered at discounted rate of £10 (RRP is £65)



Coverage received by media outlets

Partnership working - over 100 partners in 23 countries



Italy
Spain
Belgium
Austria
Sweden
Greece
UK
Czech Republic
Netherlands
Switzerland
Luxemburg
Hungary

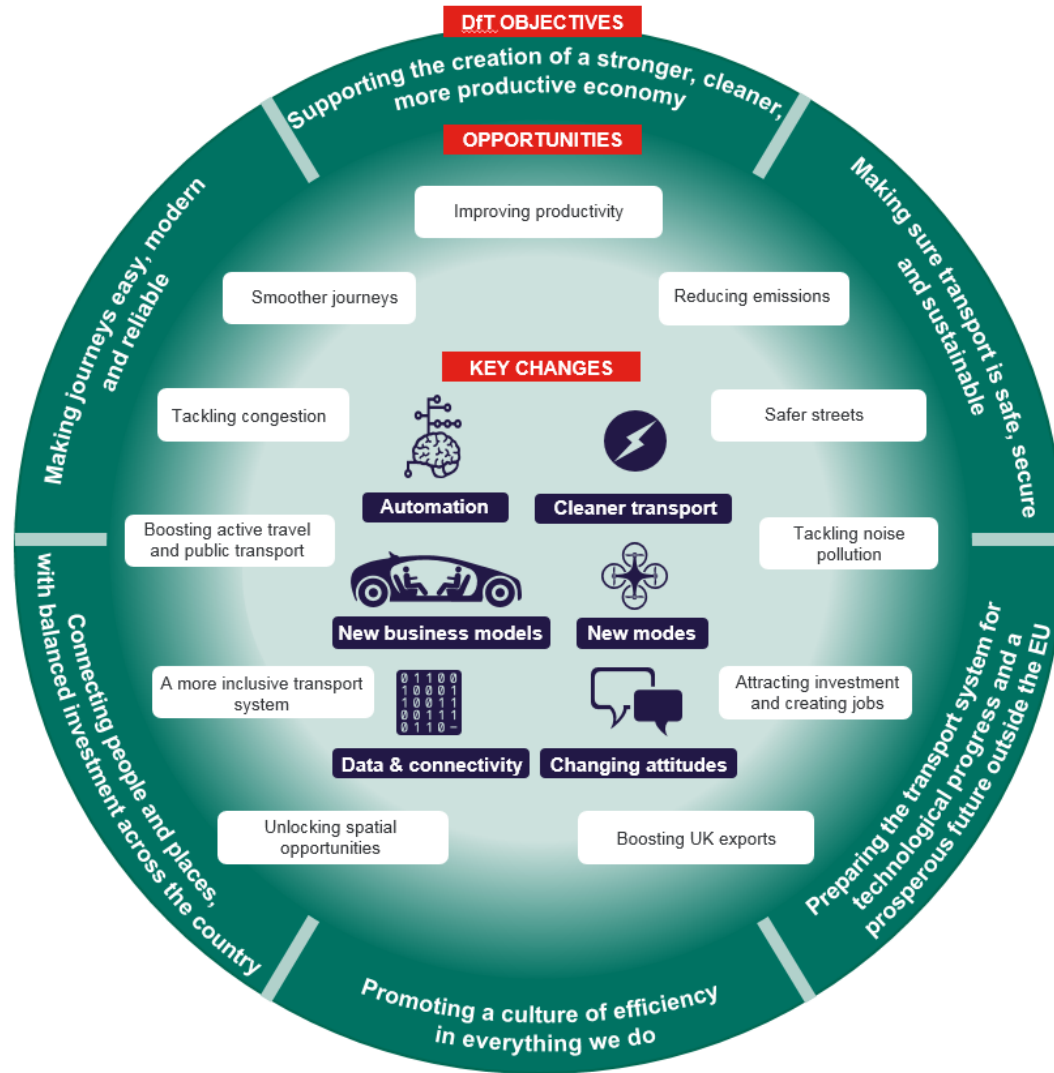
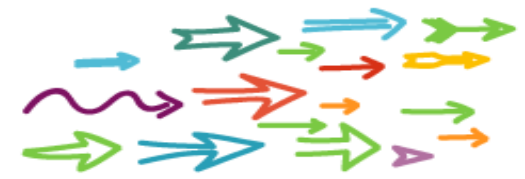
Denmark
Finland
Germany
Portugal
Ireland
Slovenia
Poland
Bulgaria
France
Norway
Albania

Softeco Sismat Srl
Mosaic Factor
Union Internationale des Transports Public
AustriaTech
Ubigo Innovation
Institute of communication and Computer systems
Vectos Ltd
Ceske Vysoke Uceni Technike V Praze
Here Global
Intrasoft International
BKK Budapesti Közlekedési Központ
Zártkörűen Működő Részvénytársaság
Aachener Verkehrsverbund GmbH
MaaS Global
Munich
Lisbon
Dublin
Maribor
Warsaw
Sofia
Paris
Oslo
Albanian Ministry of Transport
Fit Consulting
Barcelona
Intrasoft International
Vasttrafik
Panepistimio Aigaiou
Univeristy College London
Chess IT International
Urbannext SA
S.L.A S.A
Budapesti Muszaki Es Gazdasagtudományi Egyetem
Kronborg

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Ulm
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Gdynia
Lyon
Citta Di Torino
Madrid
POLIS
Viktoria Swedish ICT
CERTH/HIT Hellenic Institute of Transport
University of Wolverhampton
Parkstad Limburg
Budapest
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Torres Vedras
5T SRL
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Gothenburg
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Roermond
City Tempere
Stuttgart
TRT Trasporti E Territorio SRL
DfT
Rotterdam
Bielefeld
ITL
Hayfield Sustainable Transport Ltd
Rijkswaterstaat
ERTICO
Emilia--Romagna

Manchester City Council
Hamburg
The Association of Greater Manchester Authorities
CityCo
Intu Retail Services Ltd
Arndale Centre
London
Southampton
Northamptonshire County Council
Greater Manchester Local Enterprise Partnership
Cisco UK
University of Manchester
Manchester Metropolitan University
MSP
BT
Kiltr
Future Everything
Clicks and Links
Reggio Emilia
Ravenna
Bologna

Future Mobility Grand Challenge



Future of Mobility for DfT

Automation

Cleaner transport

New business models

New modes

Data and connectivity

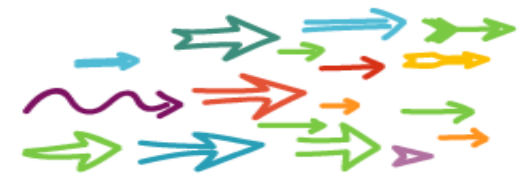
Changing attitudes



GM Future Mobility Zone - Our Elevator Pitch

“To demonstrate to the rest of the world how future mobility can enable rapid progress towards Greater Manchester’s ambitious target to be carbon neutral by 2038.”

Greater Manchester’s Future Mobility Zone will deliver tailored and replicable future mobility solutions with different customer groups in three contrasting geographies - supported by appropriate digital eco-system, governance and regulatory models - to deliver a fully integrated mobility system which tackles the climate emergency and boosts productivity.

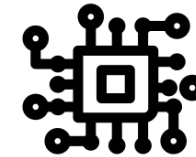


GM Future Mobility – component suite

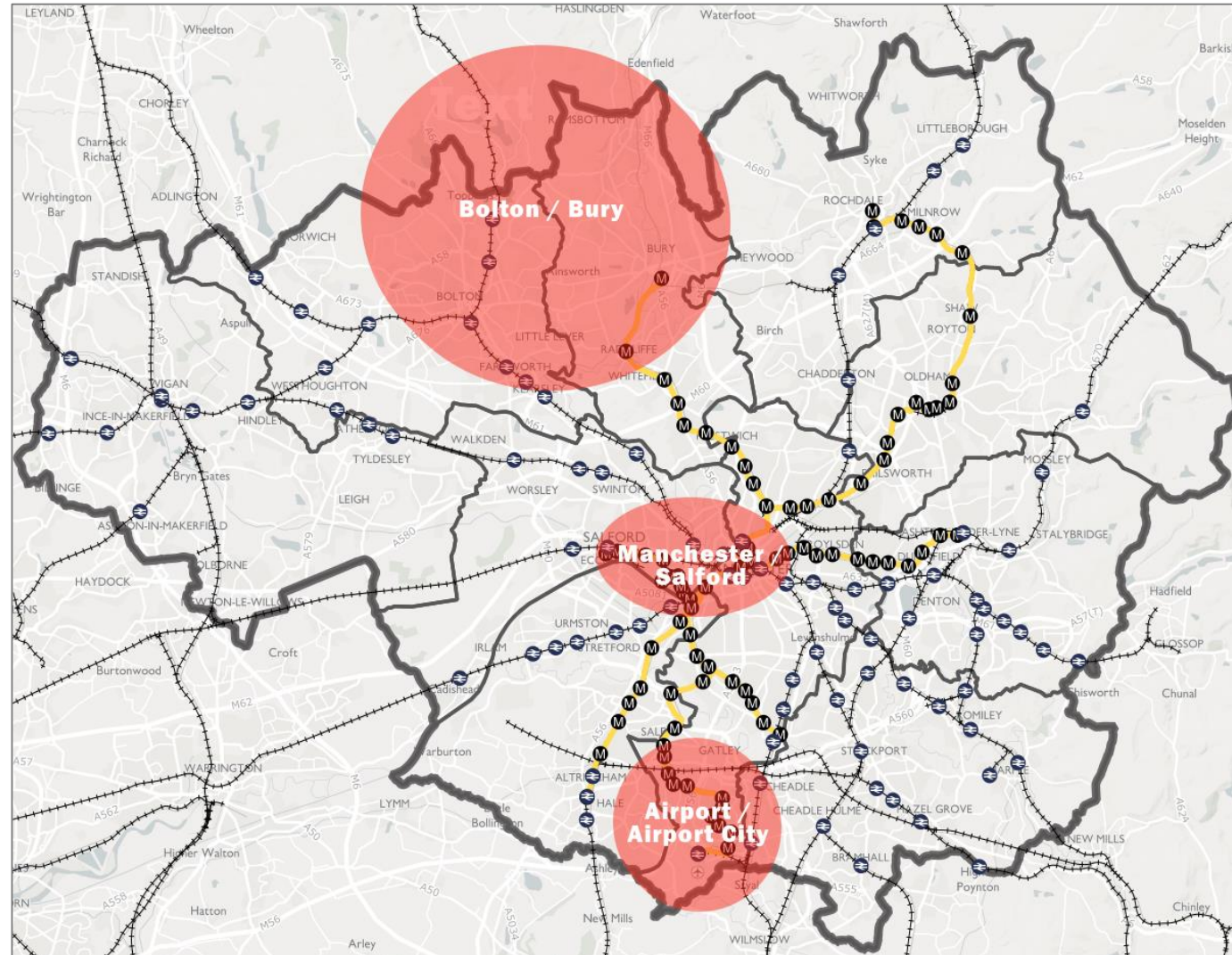
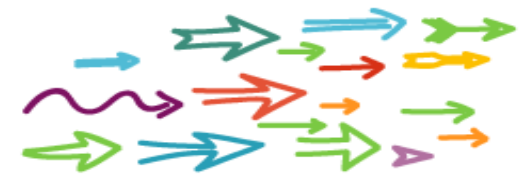
Common components, different applications

Mobility as a Service
E-mobility energy
Mobility hubs
Micro mobility
Dynamic services and sharing
Dynamic asset management
Freight 2.0
Mobility credits
E-mobility marketing

Enabled by
the digital
platform



FM 3 IDAs





Establishment of three Future Mobility Investment and Demonstration Areas (IDAs) providing a test bed to showcase an integrated suite of components

Bold innovations

Underpinned by a common digital eco-system - *integrating existing services and infrastructure to enable new access and payment models to test future mobility*

Tailored information / payment

Enabled by a regulatory & governance review – *creating the conditions for success to enable carbon neutrality by 2038 benefitting all of GM*

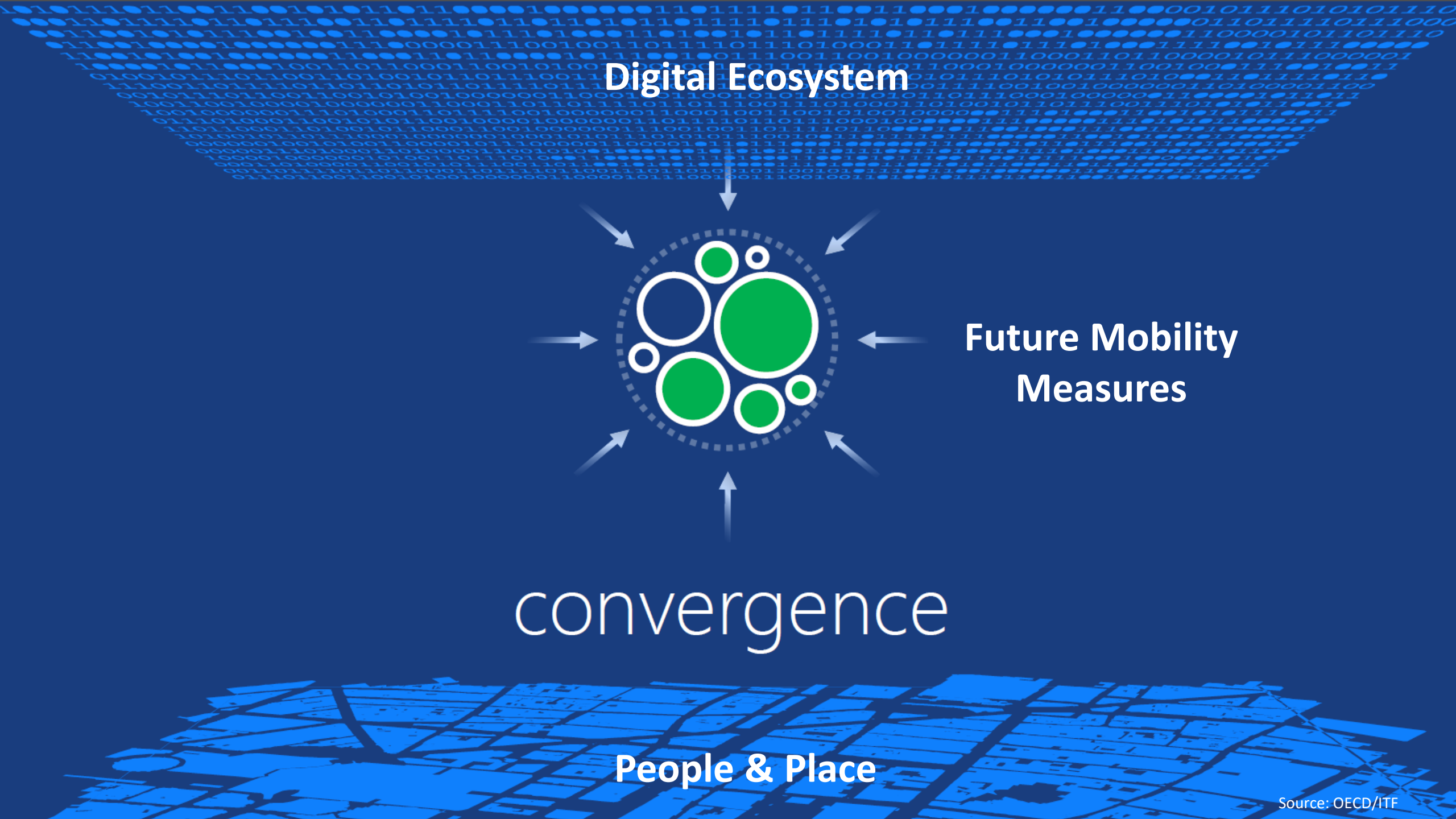
Clearing the way & gauging the market

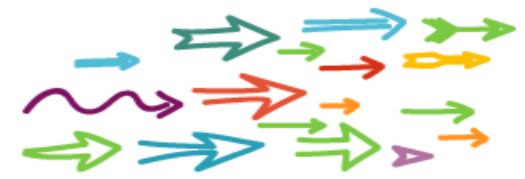
Digital Ecosystem

Future Mobility Measures

convergence

People & Place





Thank You

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